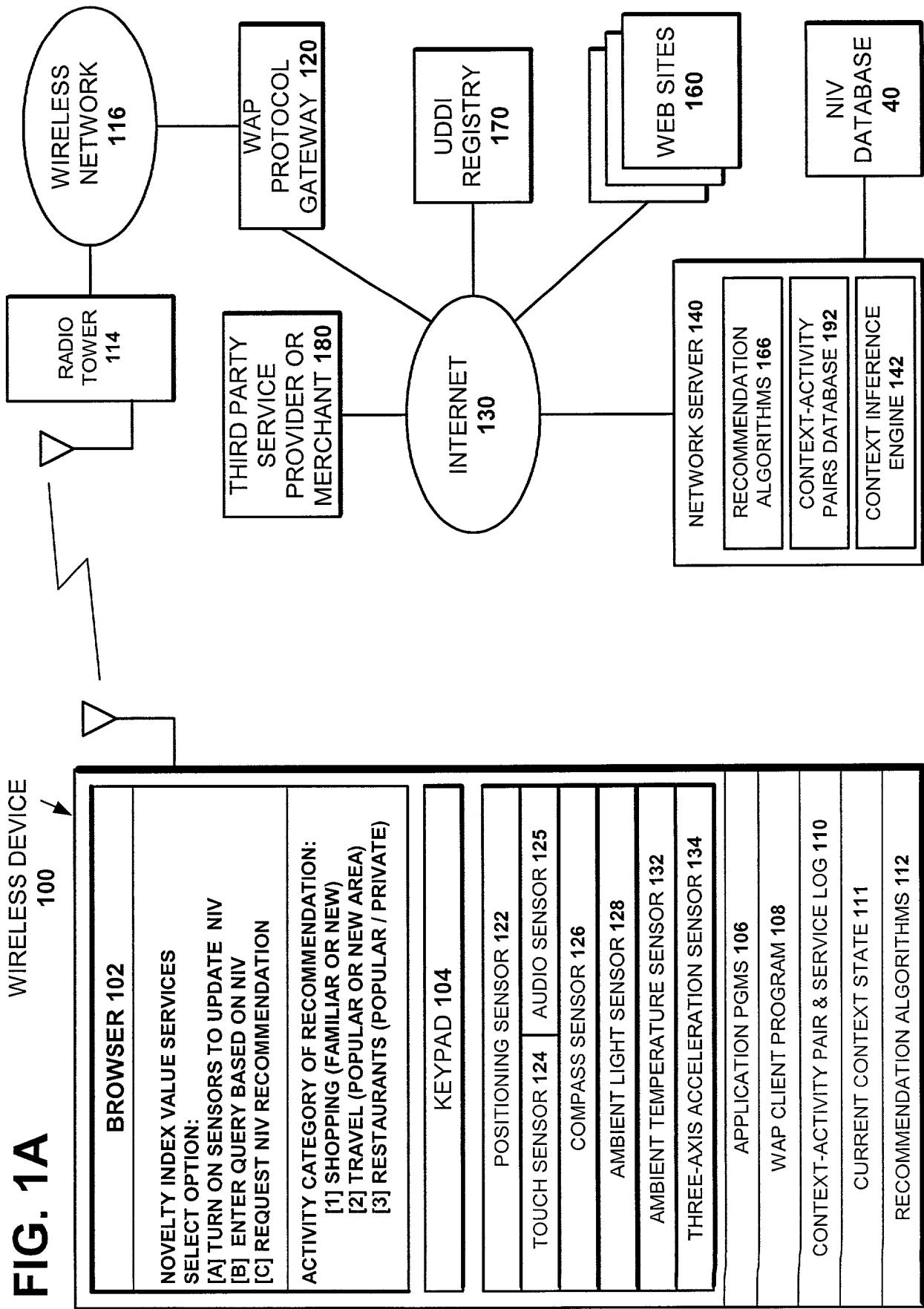


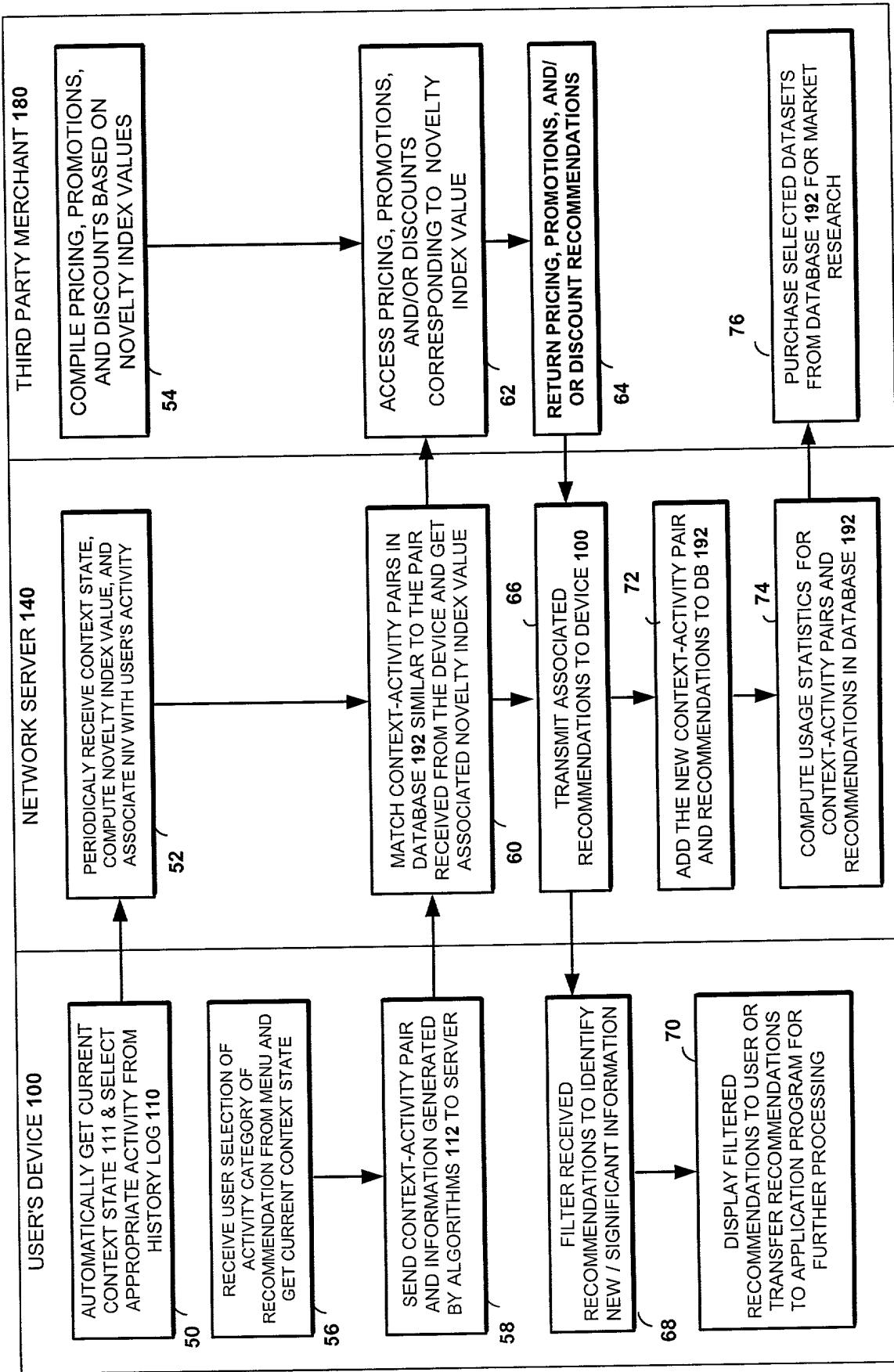
**Figure 1**

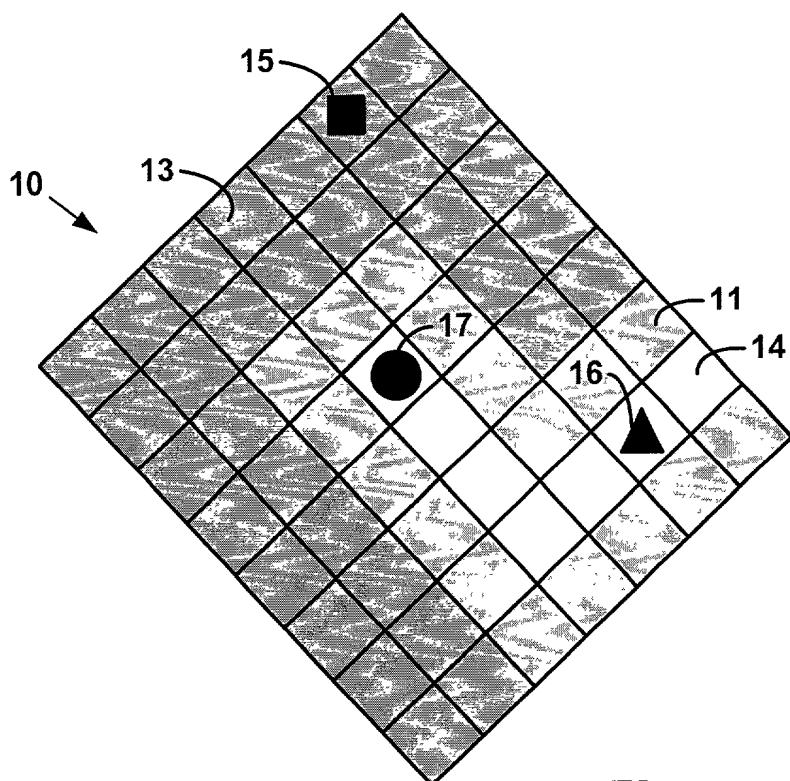
**FIG. 1A**



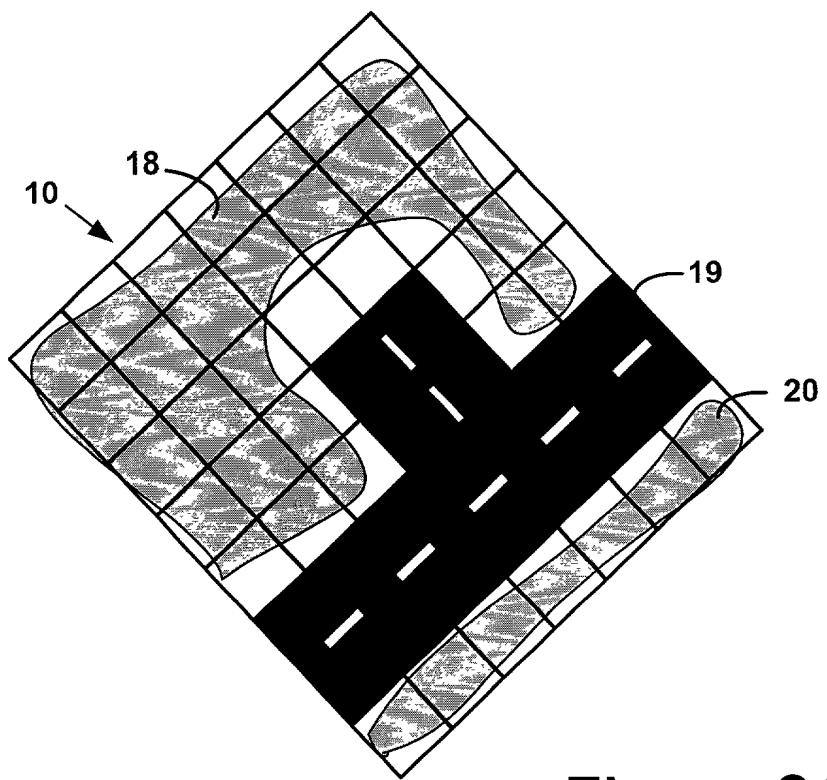
## FIG. 1B

NIV-DATA GATHERING AND NIV-BASED RECOMMENDATIONS

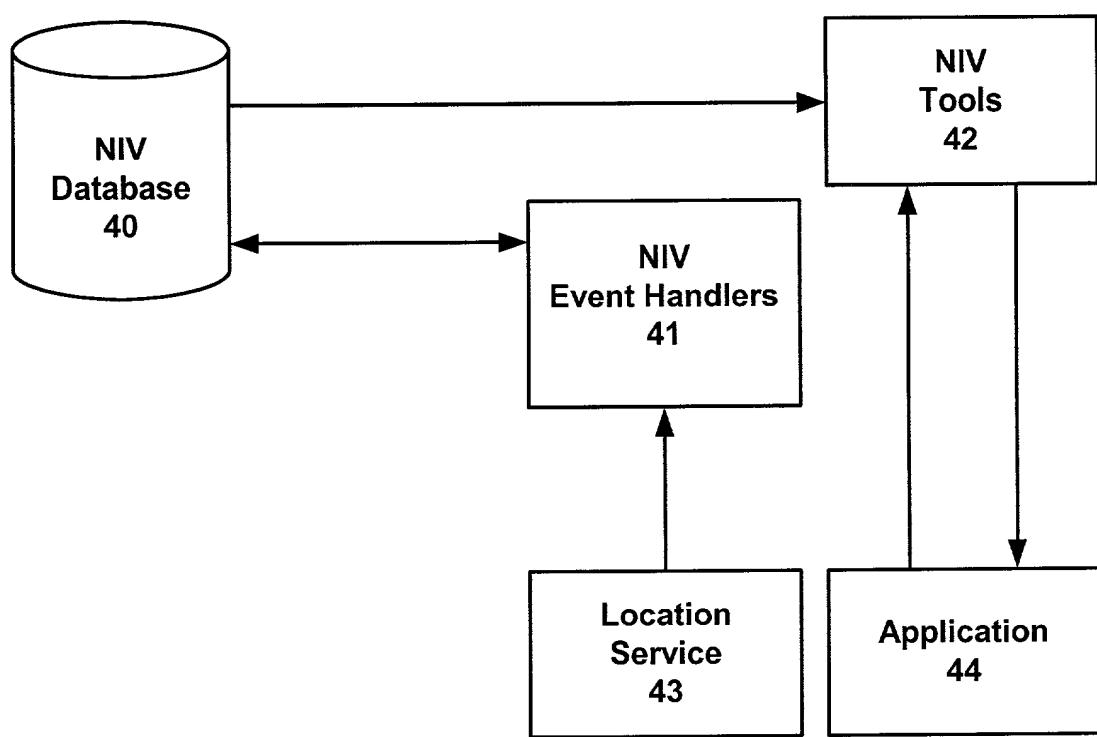




**Figure 2**



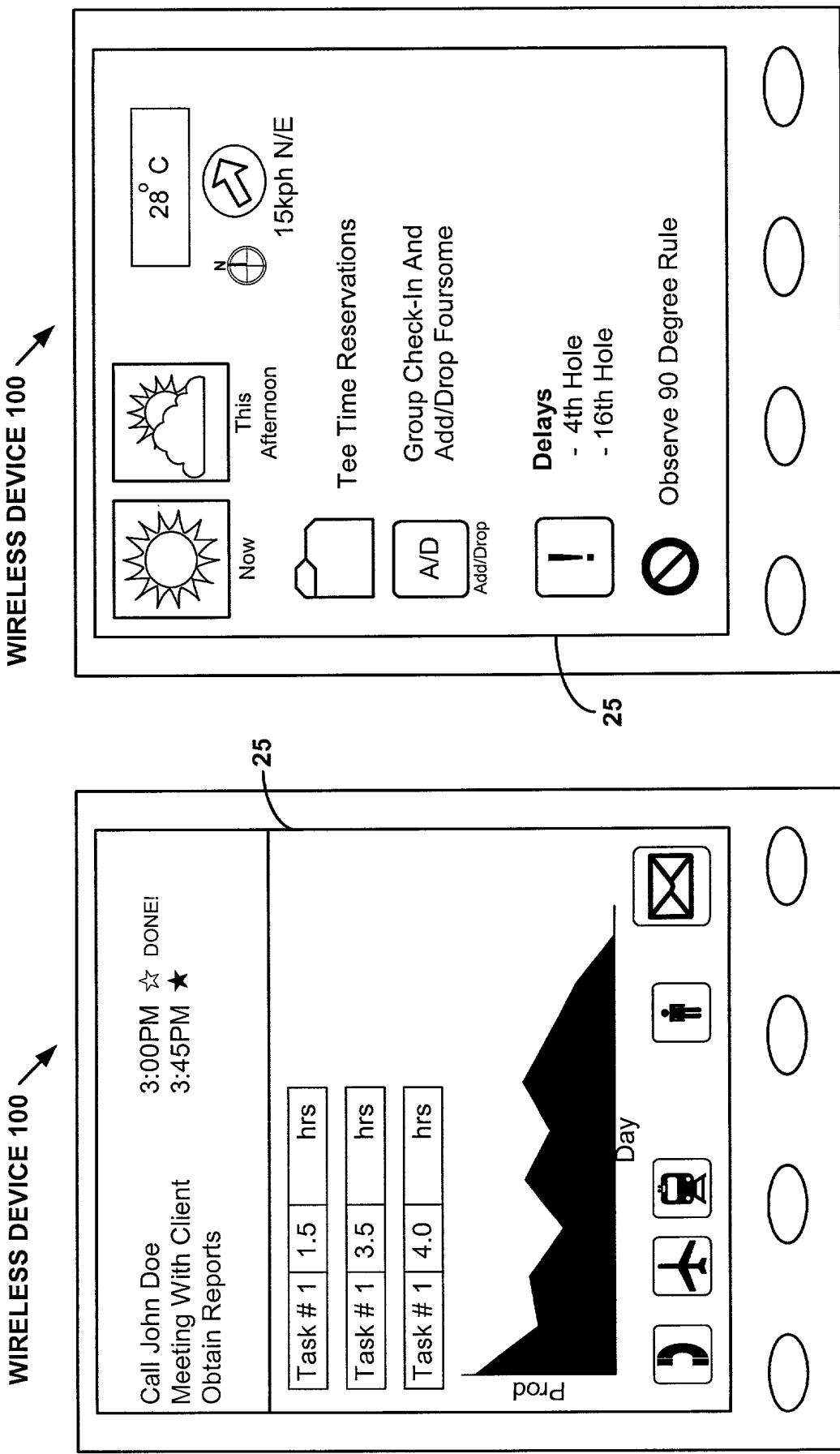
**Figure 2A**



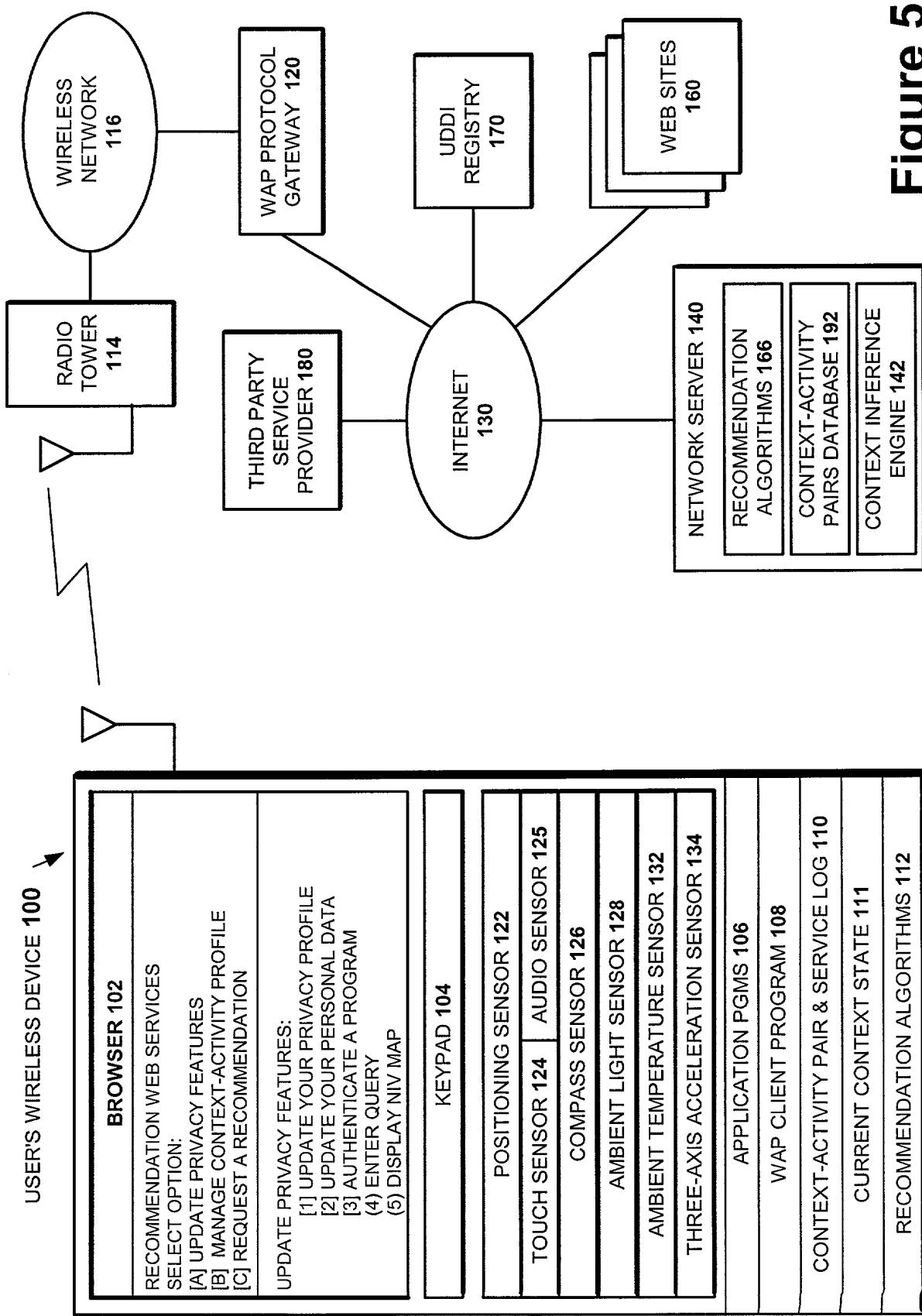
**Figure 3**

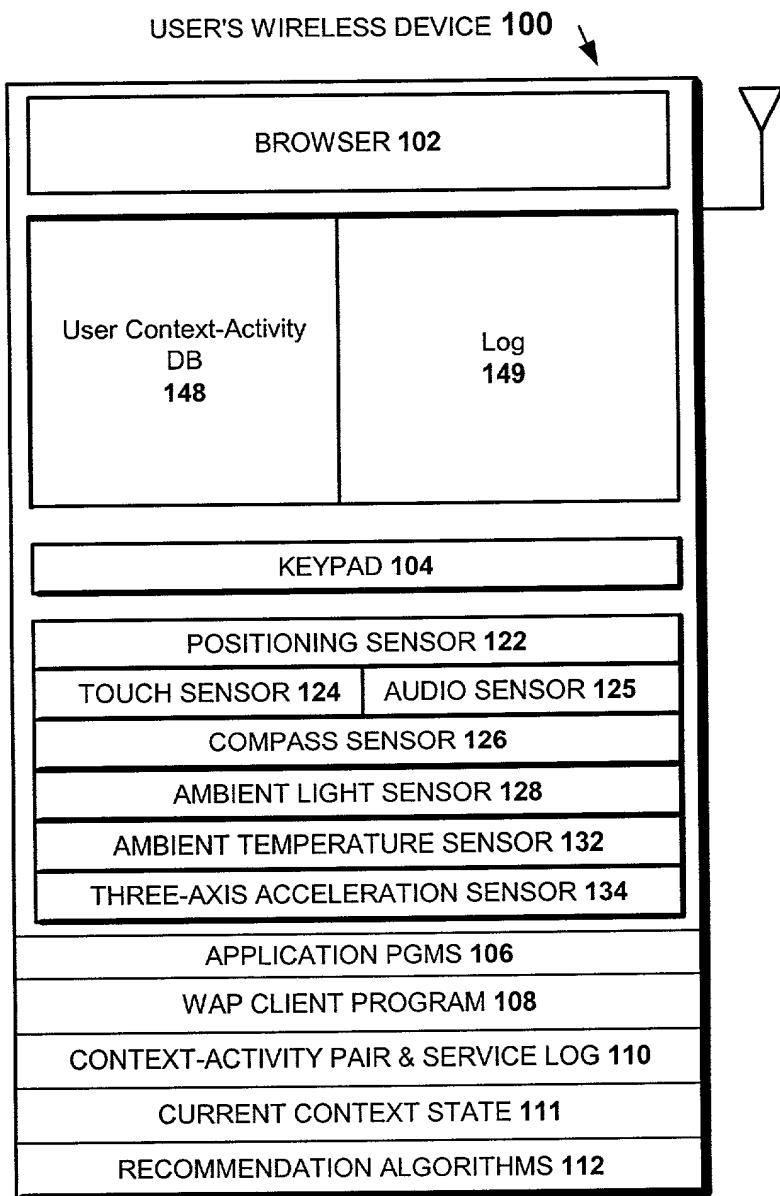
**Figure 4**

**Figure 4A**



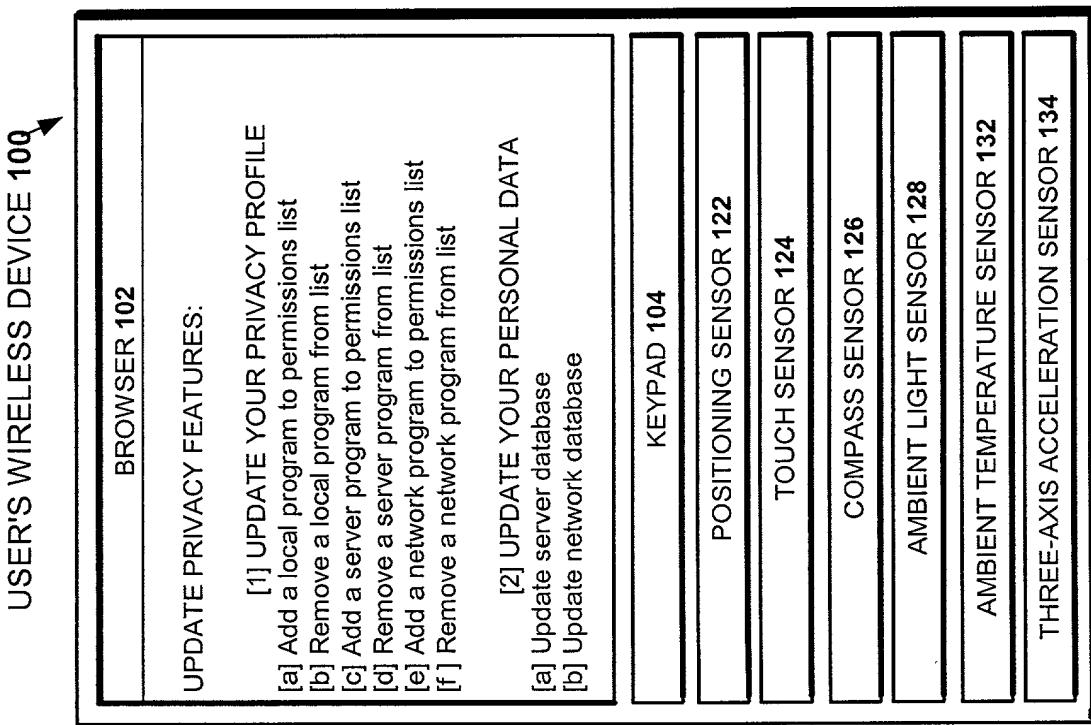
**Figure 5**



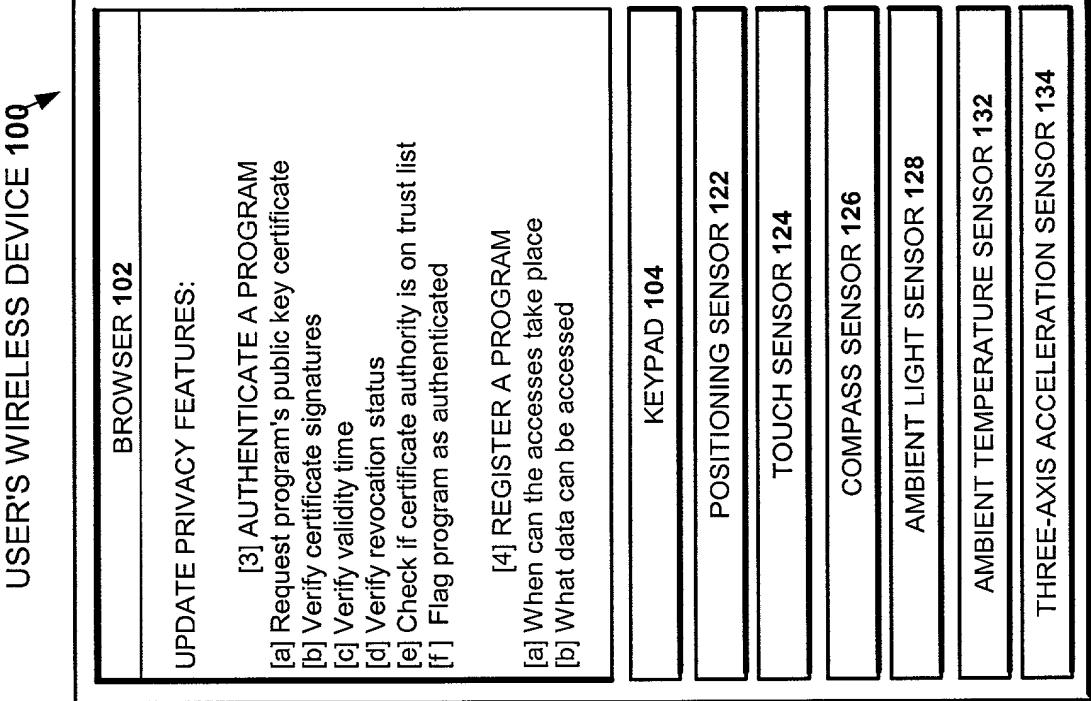


**Figure 6**

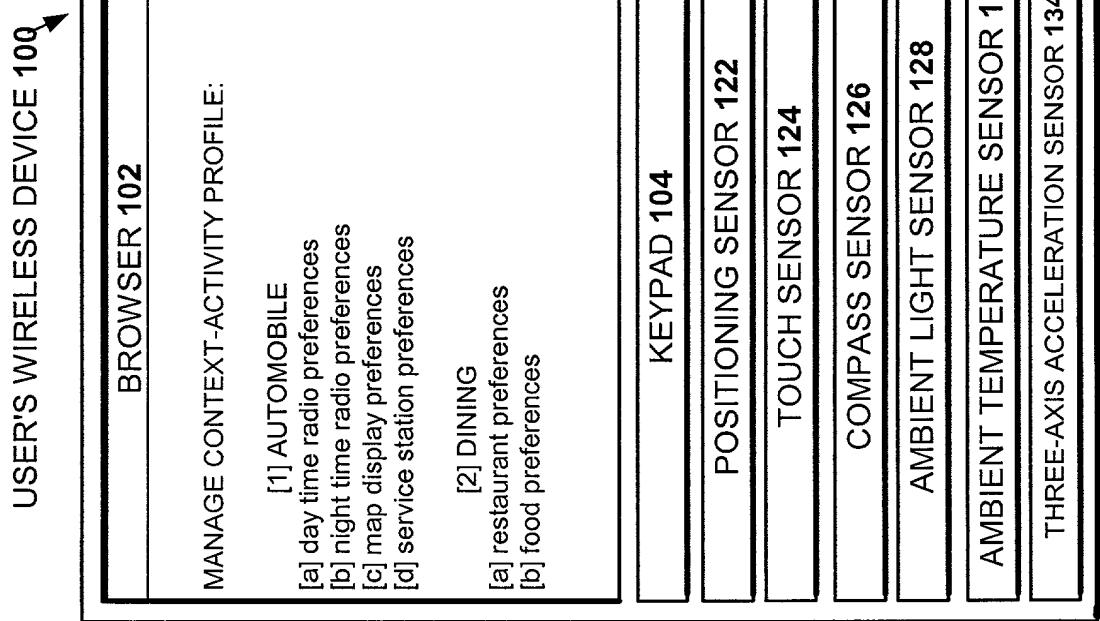
**Figure 6A**



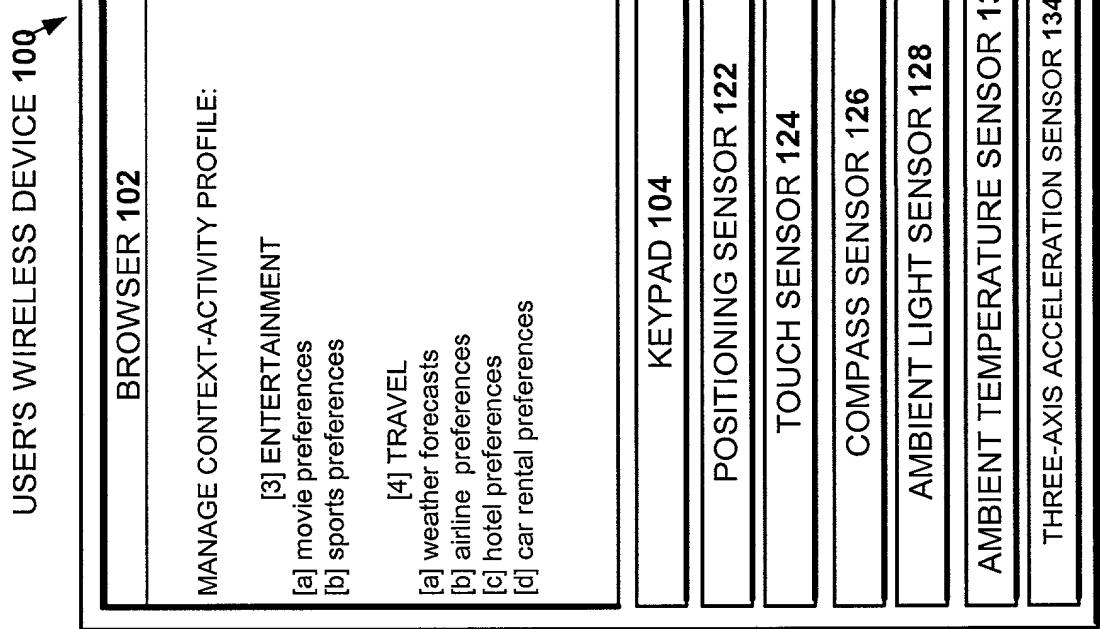
**Figure 6B**



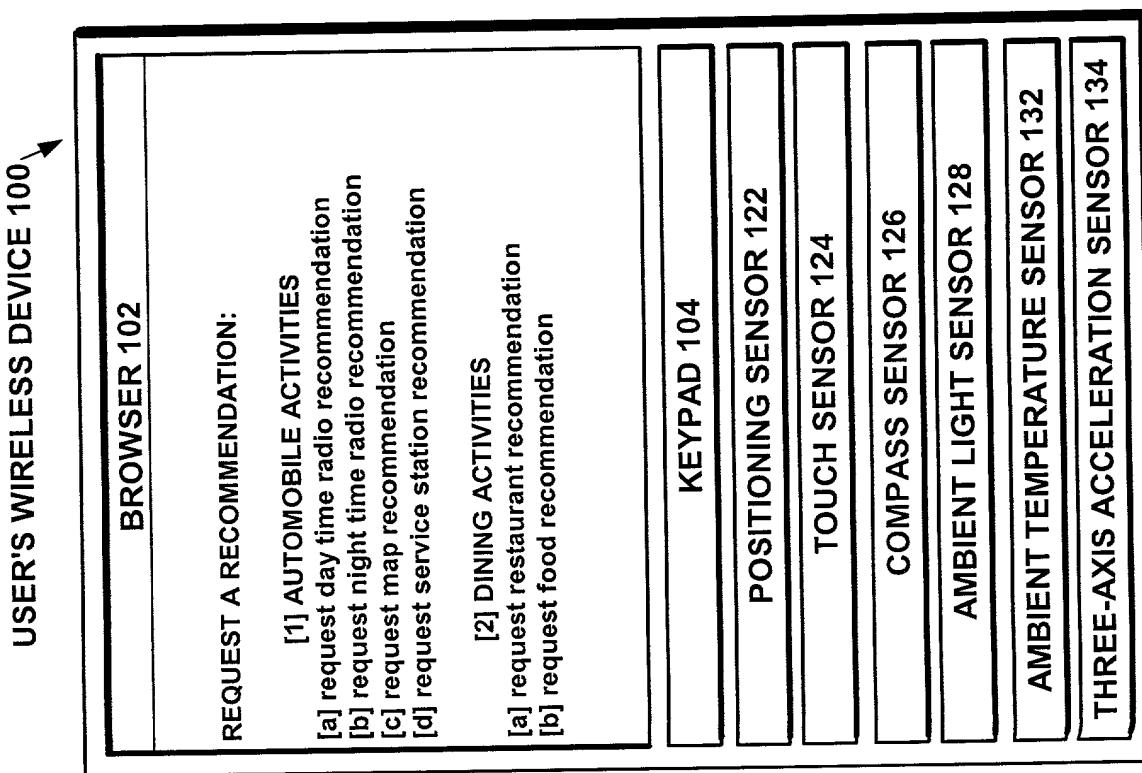
**Figure 6C**



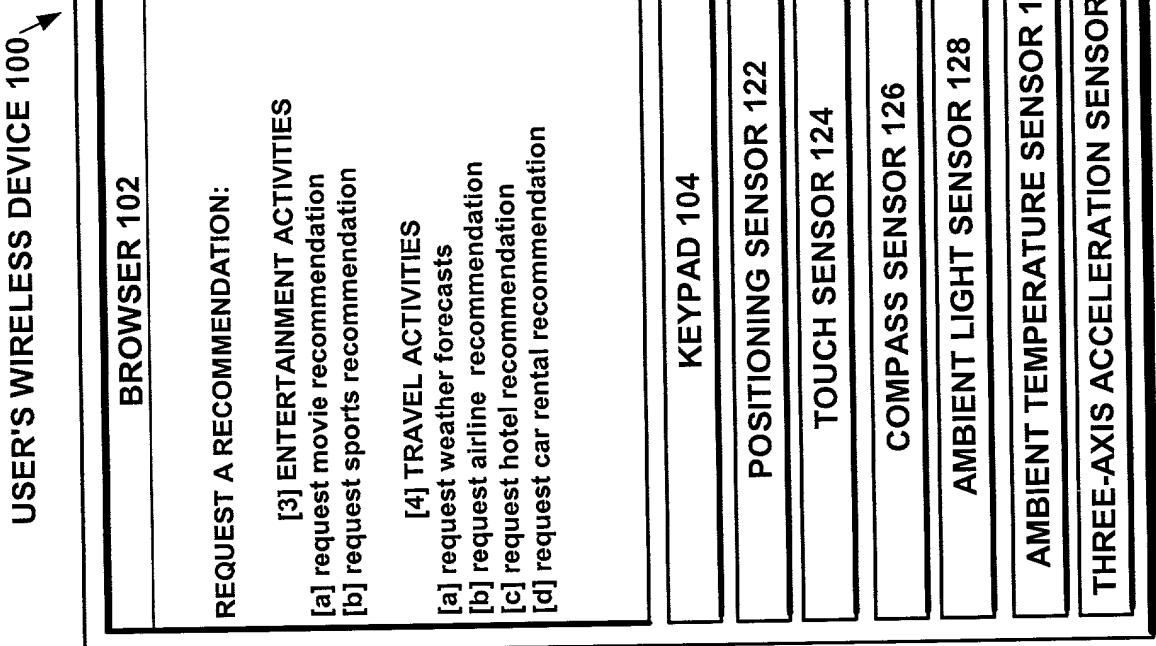
**Figure 6D**



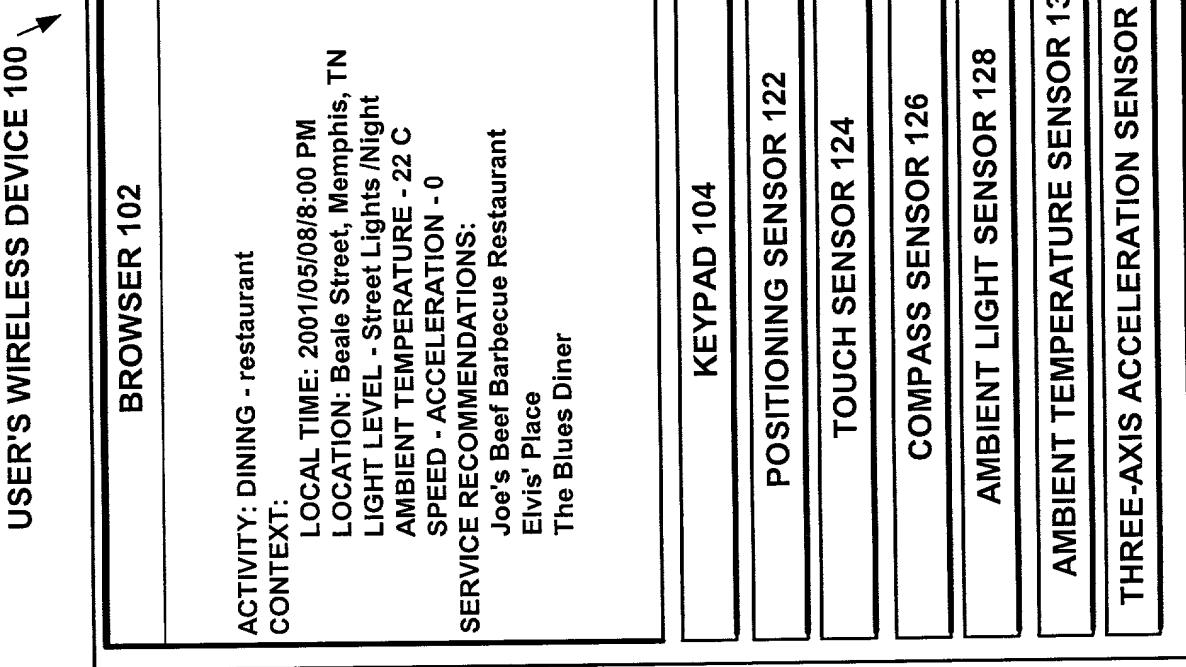
**Figure 6E**



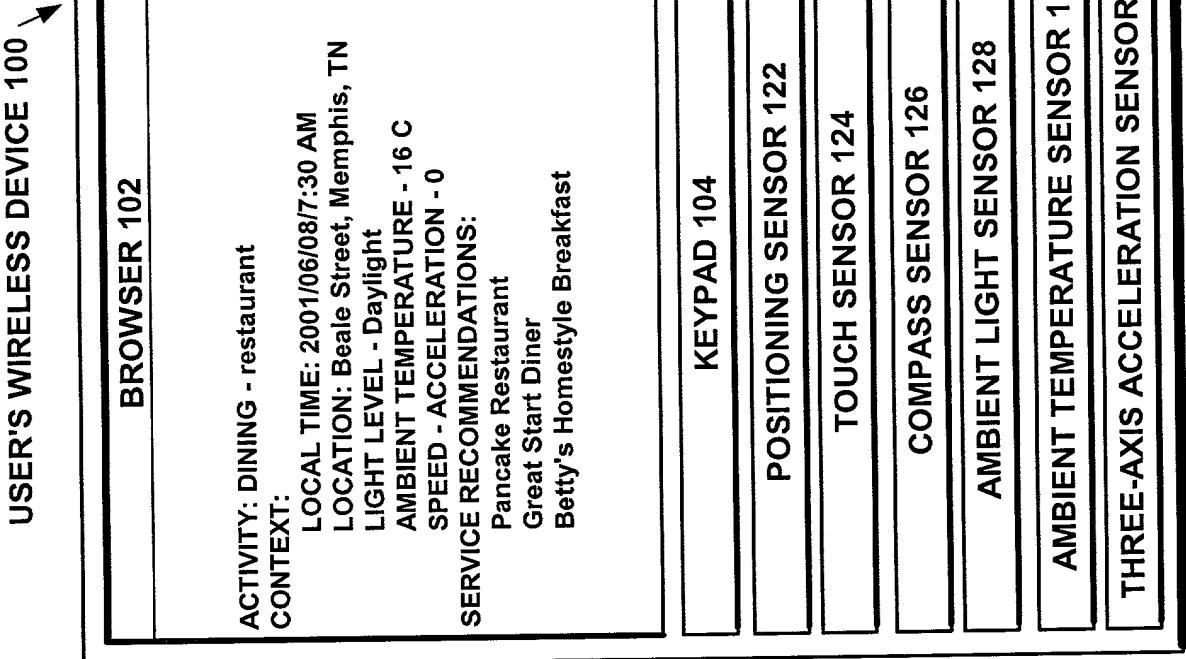
**Figure 6F**



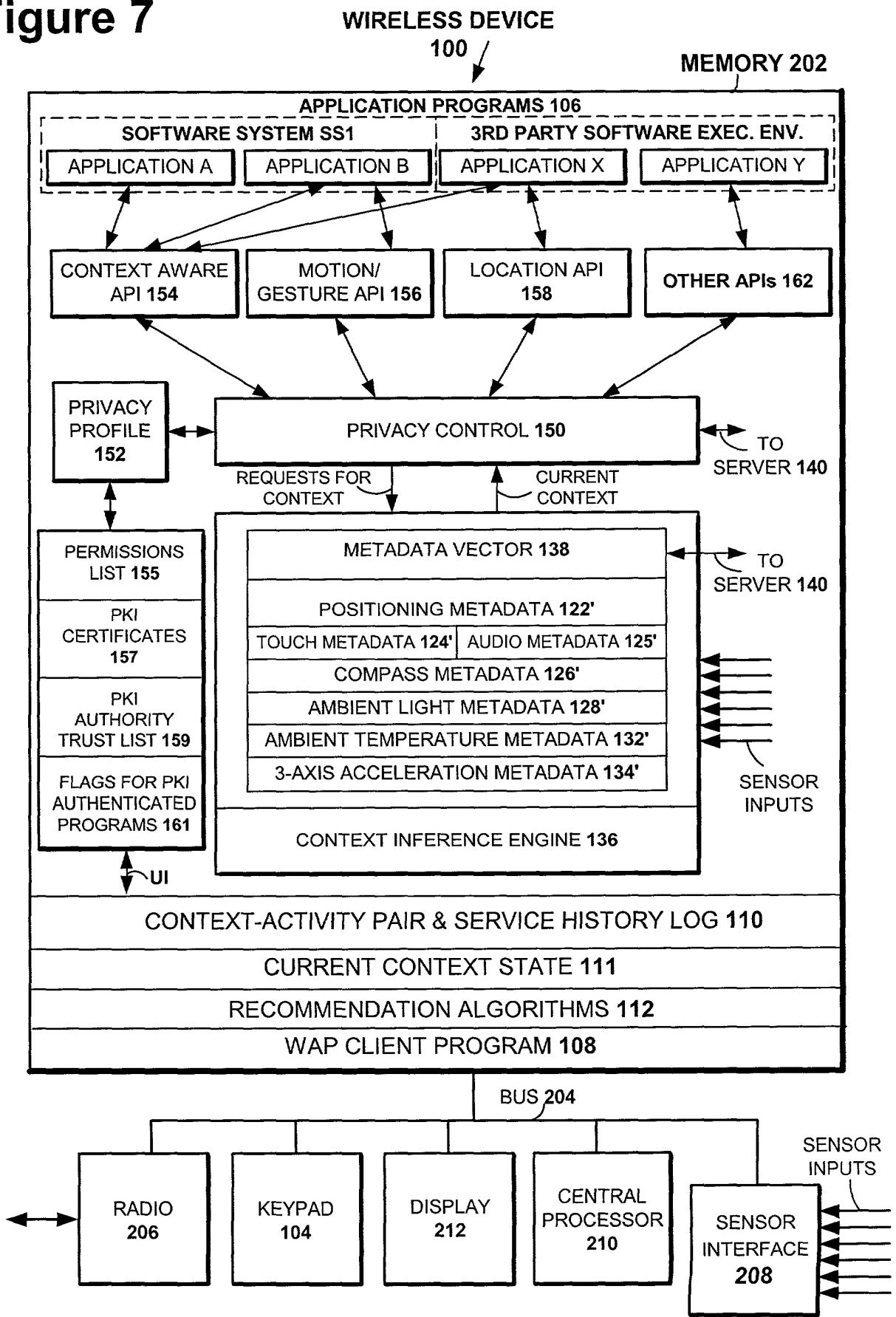
**Figure 6G**



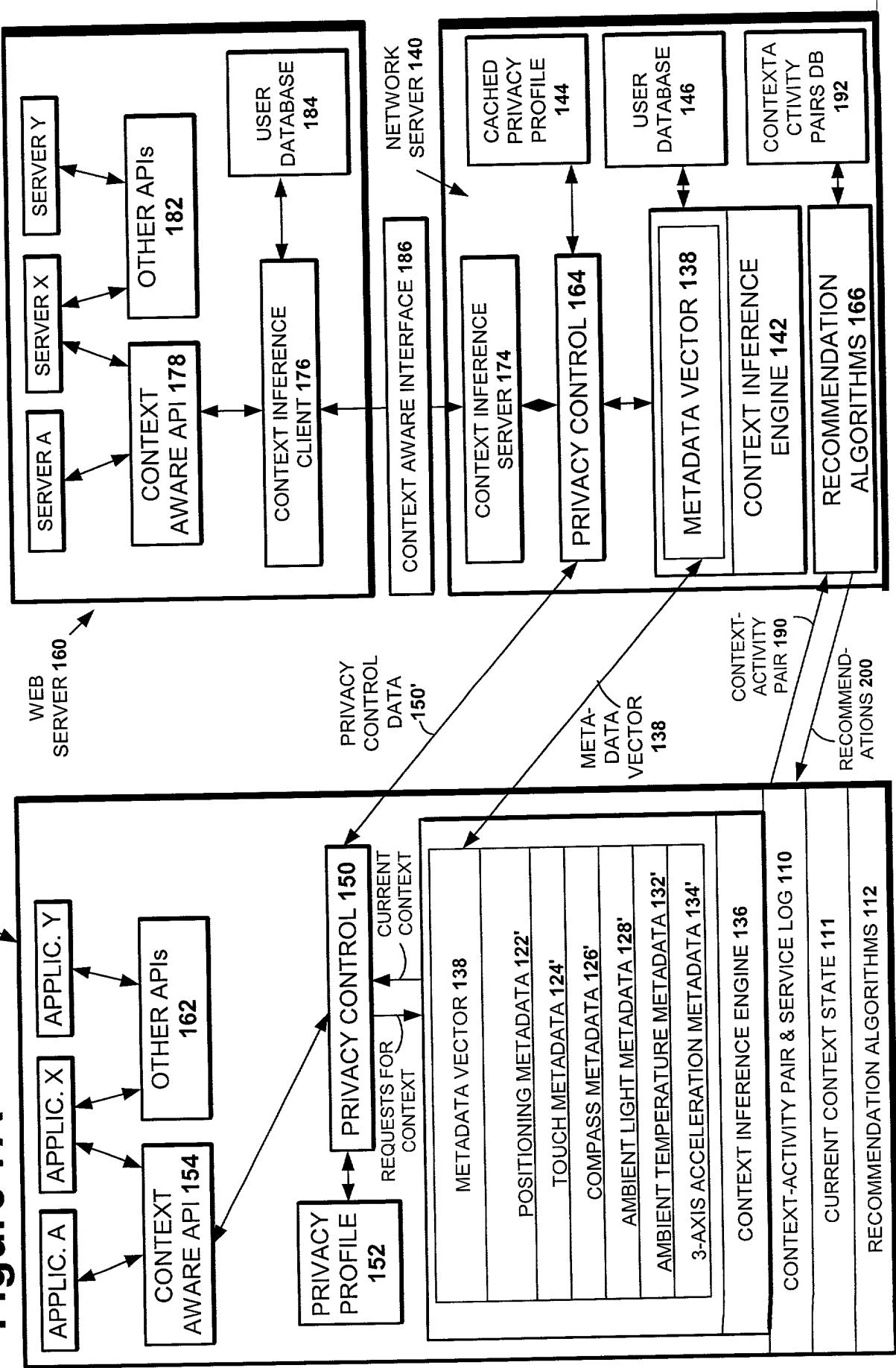
**Figure 6H**



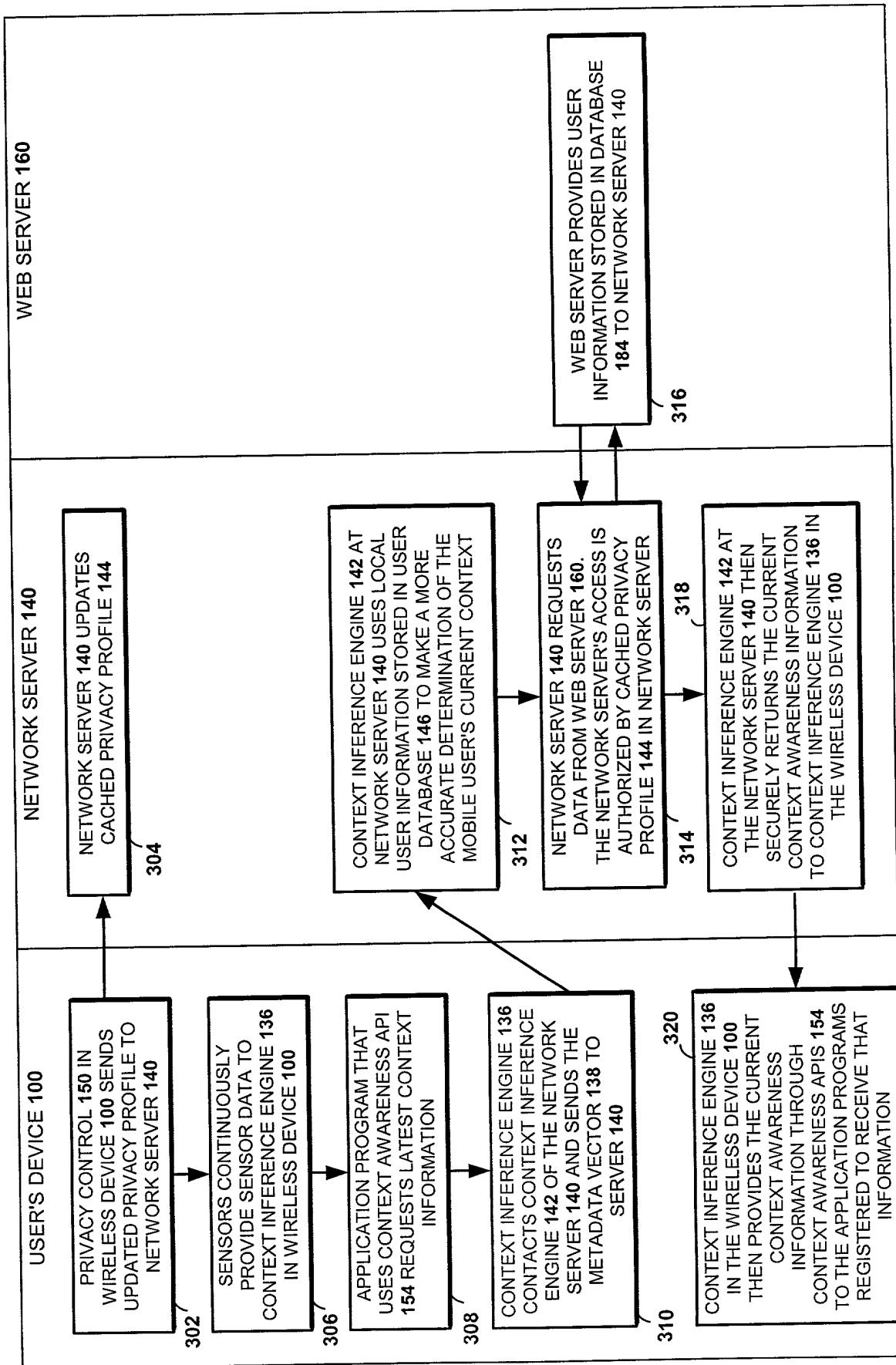
**Figure 7**



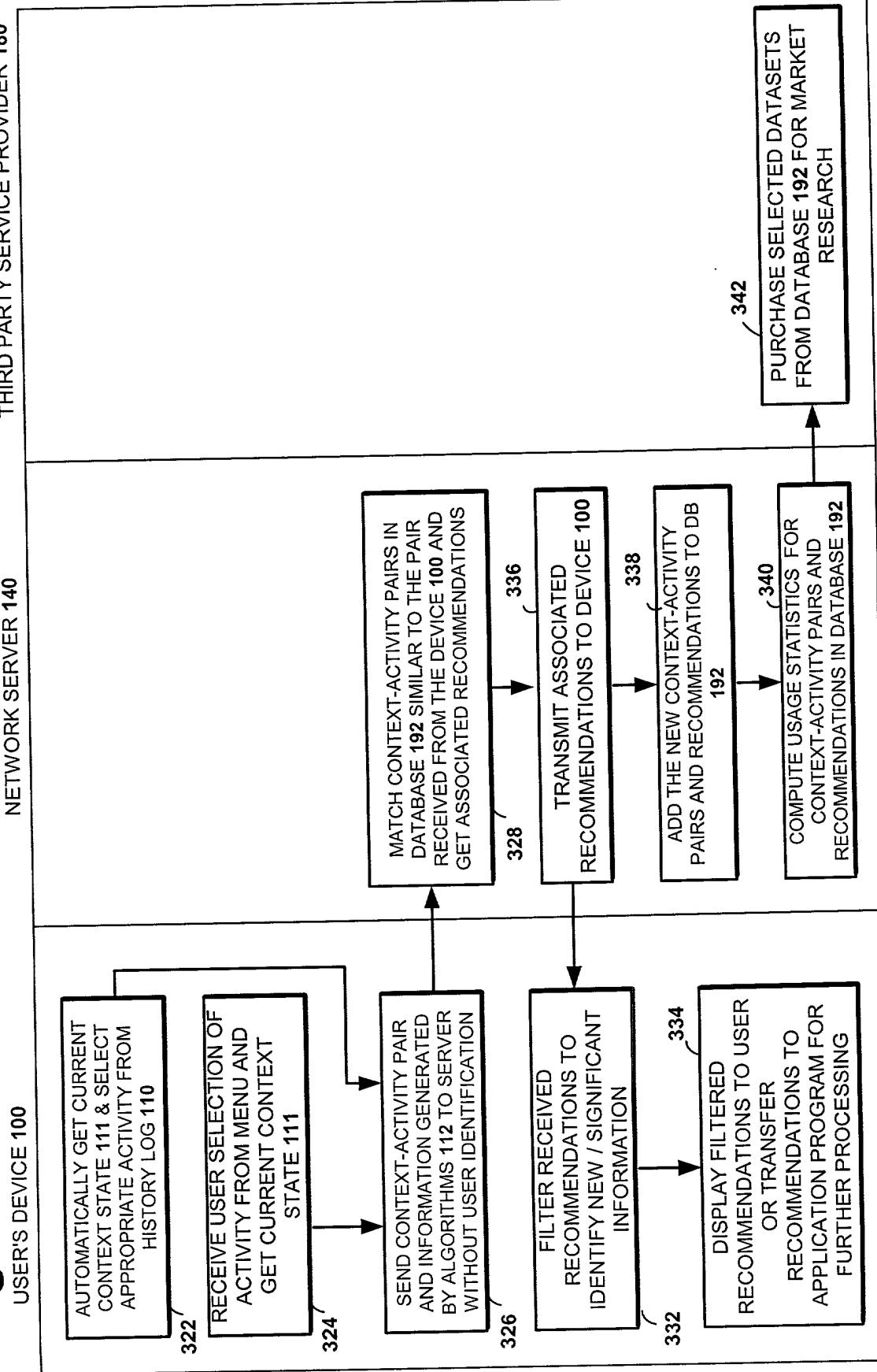
**Figure 7A**



**Figure 8**



## Figure 8A



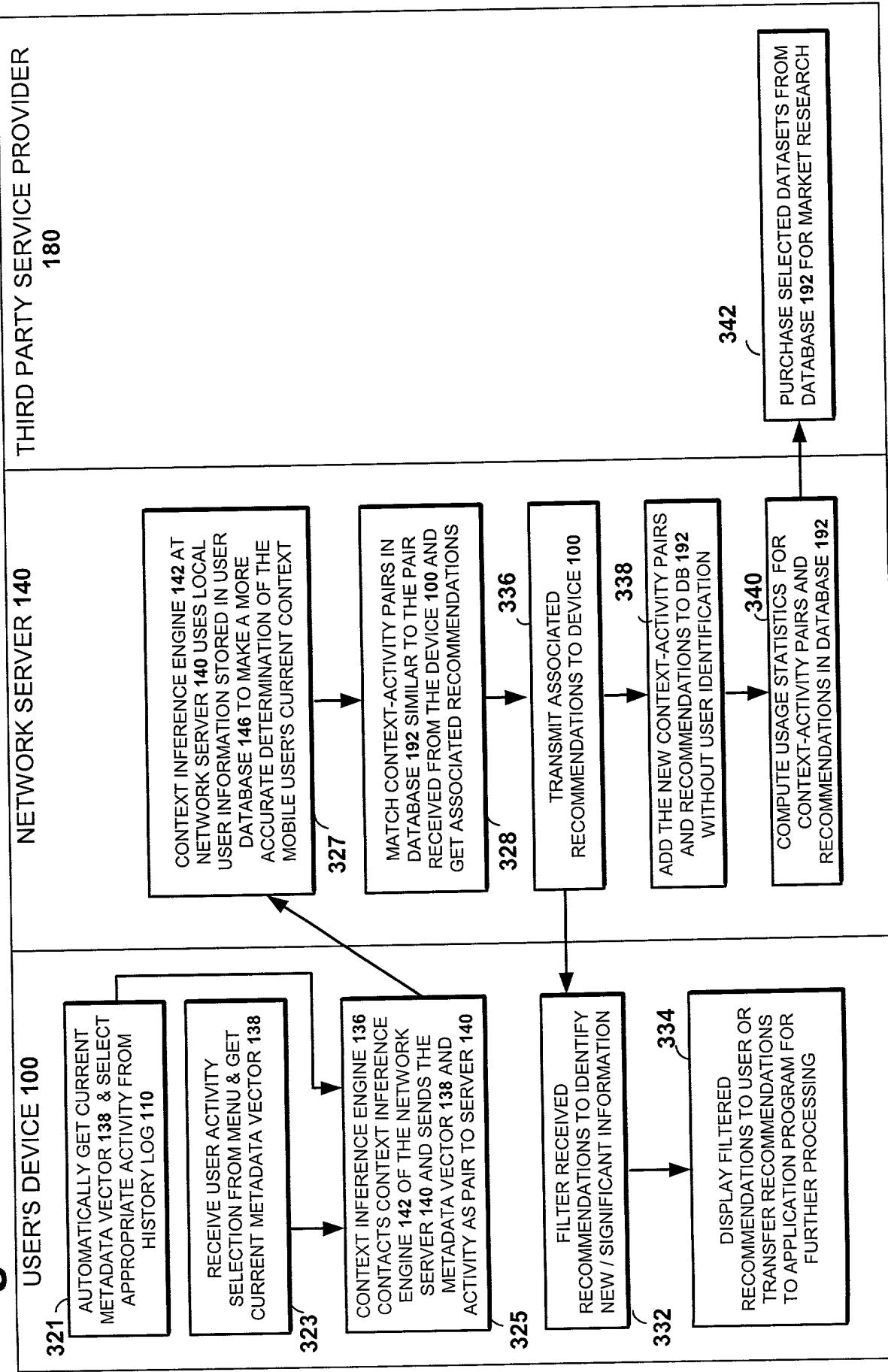
# Figure 8B

CONTEXT-ACTIVITY PAIRS AND SERVICES DATABASE 192 IN SERVER 140		
CONTEXT-ACTIVITY PAIRS	SERVICE RECOMMENDATIONS	NUMBER TIMES RECOMMENDED
<b>ACTIVITY:</b> DINING - restaurant <b>CONTEXT:</b> LOCAL TIME: 6:00 PM - 11:59 PM LOCATION: Beale St, Memphis TN LIGHT LEVEL: Night AMBIENT TEMPERATURE: 15 C - 25 C SPEED - ACCELERATION: 0 - 50 kph	Joe's Beef Barbecue Restaurant Elvis' Place The Blues Diner The Gourmet Restaurant Dan's Fast Food Restaurant	R=20 R=33 R=18 R=25 R=40
<b>ACTIVITY:</b> DINING - restaurant <b>CONTEXT:</b> LOCAL TIME: 5:00 AM - 10:59 AM LOCATION: Beale St, Memphis TN LIGHT LEVEL: Daylight AMBIENT TEMPERATURE: 15 C - 25 C SPEED - ACCELERATION: 0 - 50 kph	Pancake Restaurant Great Start Diner Betty's Homestyle Breakfast Mike's Quick Breakfasts Dan's Fast Food Restaurant	R=120 R=100 R=130 R=150 R=120

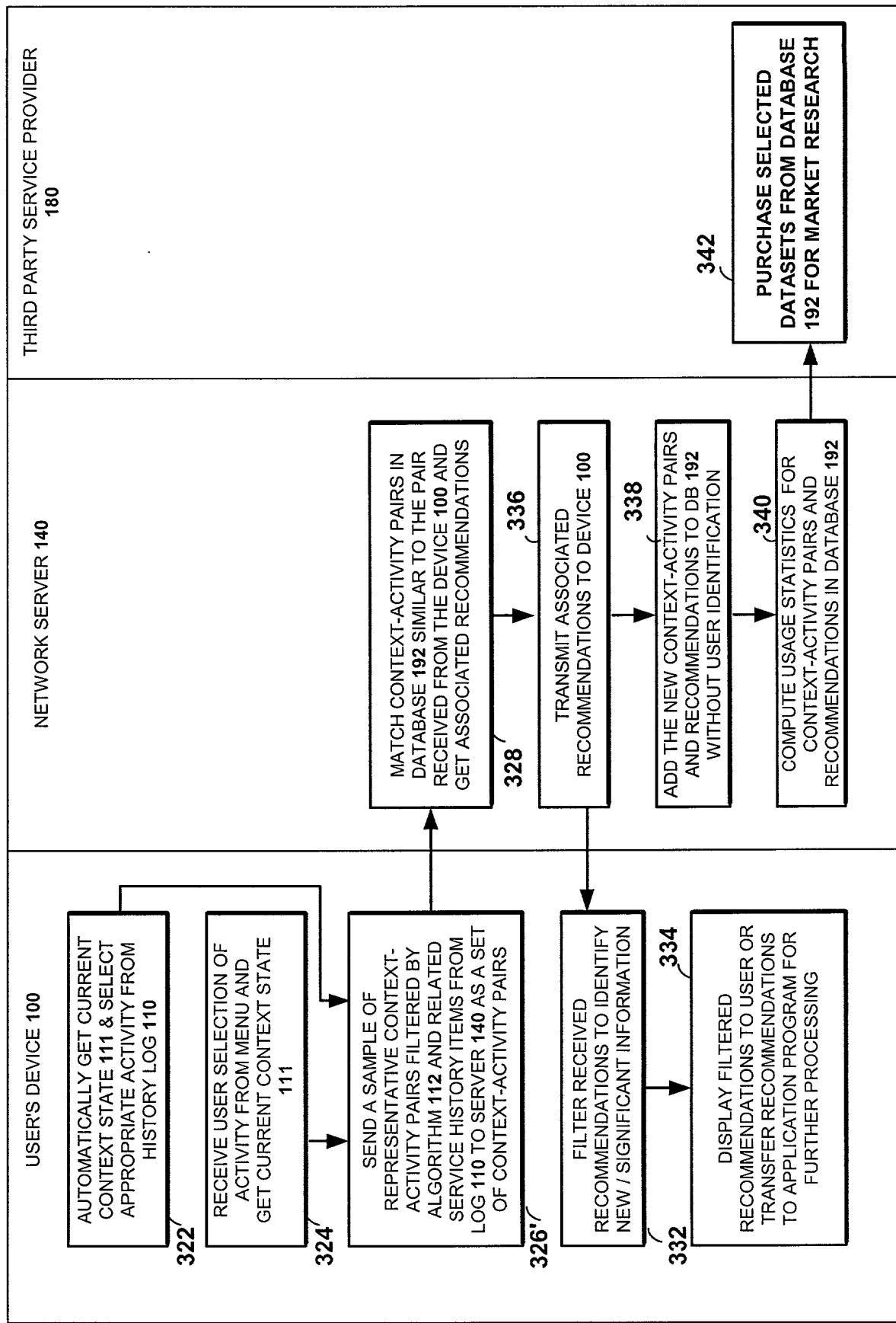
## Figure 8C

CONTEXT-ACTIVITY PAIRS AND SERVICE HISTORY LOG 110 IN DEVICE 100		RECOMMENDATIONS FROM SERVER	RECEIVE BUFFER IN DEVICE 100
CONTEXT-ACTIVITY PAIR HISTORY	HISTORY OF SERVICES USED		
<p>ACTIVITY: DINING - restaurant</p> <p>CONTEXT: LOCAL TIME: 6:00 PM - 11:59 PM LOCATION: Beale St, Memphis TN LIGHT LEVEL: Night AMBIENT TEMPERATURE: 15 C - 25 C SPEED - ACCELERATION: 0 - 50 kph</p>	<p>The Gourmet Restaurant [USER'S RATING = 8] Dan's Fast Food Restaurant [USER'S RATING = 6]</p>	<p>Joe's Beef Barbecue Restaurant Elvis' Place The Blues Diner The Gourmet Restaurant Dan's Fast Food Restaurant</p>	<p>R=20 R=33 R=18 R=25 R=40</p>
<p>ACTIVITY: DINING - restaurant</p> <p>CONTEXT: LOCAL TIME: 5:00 AM - 10:59 AM LOCATION: Beale St, Memphis TN LIGHT LEVEL: Daylight AMBIENT TEMPERATURE: 15 C - 25 C SPEED - ACCELERATION: 0 - 50 kph</p>	<p>Mike's Quick Breakfasts [USER'S RATING = 8] Dan's Fast Food Restaurant [USER'S RATING = 5]</p>	<p>Pancake Restaurant Great Start Diner Betty's Homestyle Breakfast Mike's Quick Breakfasts Dan's Fast Food Restaurant</p>	<p>R=120 R=100 R=130 R=150 R=120</p>

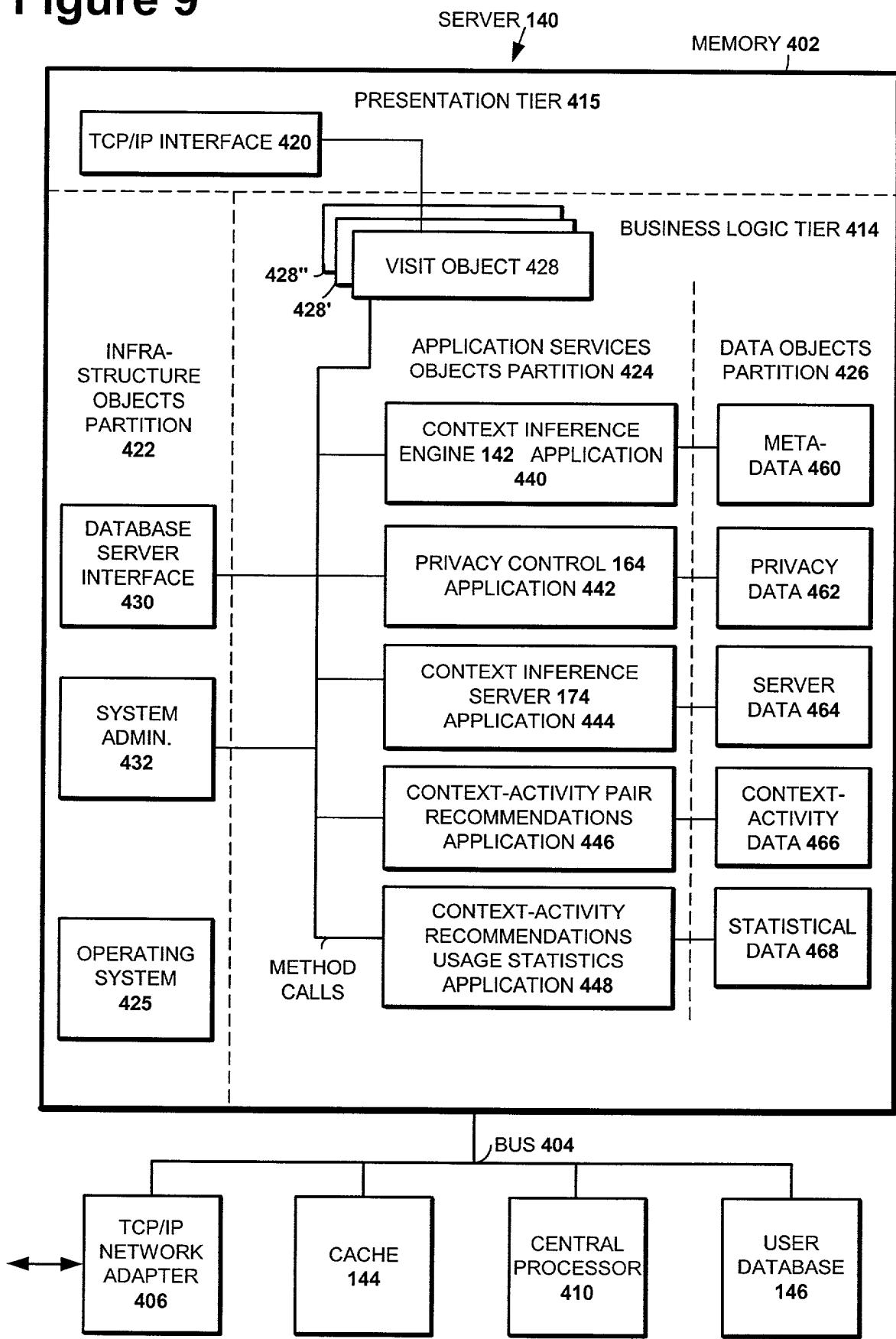
## Figure 8D



# Figure 8E



**Figure 9**



# Figure 10

